

REMARKS/ARGUMENTS

This paper is responsive to the Office Action dated July 9, 2004, having a shortened statutory period expiring on October 9, 2004, wherein:

Claims 1, 146-167 were previously pending in the application;

Claims 150-155 and 161-166 were objected to; and

Claims 1, 146-149, 156-160, and 167 were rejected.

No claims have been amended, added, or canceled by this amendment. Accordingly, claims 1, 146-167 are currently pending in the above-identified patent application.

Formal Matters

In the present Office Action, claims 150-155 and 161-166 were objected to (presumably for being dependent upon rejected base claims) but indicated as being otherwise allowable. Although Applicants have not elected to amend claims 150-155 and 161-166 into independent form at the present time, Applicants wish to express their appreciation for the Examiner's indication of allowable subject matter and reserve the right to so amend claims 150-155 and 161-166 at a later time.

Rejection of Claims under 35 U.S.C. §102

In the present Office Action, claims 1, 146, 156, 157, and 167 were rejected under 35 U.S.C. §102(e), as being anticipated by United States Patent No. 5,959,972, issued to Hamami (hereinafter "*Hamami*"). While not conceding that the Examiner's cited reference(s) qualify as prior art, but instead to expedite prosecution, Applicants have elected to respectfully disagree and to traverse the Examiner's rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that one or more of the Examiner's cited references do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

In the present Office Action, the Examiner states with respect to Applicants' claim 1 that,

In claims 1, 156 and 167, Hamami discloses, in Fig. 2, main ports 1 (a port failure of a first port) connected via a main link 60 (within a link) between ATM switch 1 (first node) and switch 2 (second node) are failed. Traffic corresponding to virtual circuit 68 is restored via paths 114, 65, 118 (VP is restored) over backup ports 2 (restoring traffic to a second port). Backup ports 2 (identifying second port) request their control softwares to disable their main ports, inform their peer about the main port failure (transferring a restoration message between the first and second nodes). See col. 5, lines 7-20; lines 47-55; col. 6, line 58 to col. 7, line 7.

Applicants respectfully disagree and submit that in the present Office Action the Examiner has failed to state a *prima facie* case of anticipation under 35 U.S.C. §102 and further that *Hamami* fails to teach or anticipate all elements of Applicants' claim.

It is well established that the burden of initially establishing a *prima facie* case of anticipation is placed on the Examiner (*In re King*, 801 F.2d 1324, 1327 (Fed.Cir. 1986)). In order to establish a *prima facie* case of anticipation, the Examiner is required to show each of Applicants' claim elements, either expressly or inherently, arranged as set forth in Applicants' claim within a single reference.

Applicants' claim 1, as previously presented, recites a method for restoring a virtual path in an optical network, the method comprising, *inter alia*,

in response to a determination that at least one alternate port is available within said link, restoring said virtual path to a second port of said at least one alternate port using said first node, wherein said restoring said virtual path to said second port comprises,
transferring a restoration message packet between said first node and said second node; and
identifying said second port within said link in response to said transferring (Applicants' claim 1, emphasis supplied)

As an initial matter, Applicants wish to point out that the restoration of a virtual path and not of merely "traffic" or "traffic corresponding to" a virtual path has been claimed in the embodiment of claim 1. This distinction is important to make because the Examiner's

statement that, “Traffic corresponding to virtual circuit 68 is restored via paths 114, 65, 118 (VP is restored) over backup ports 2 (restoring traffic to a second port).” consequently fails to address the elements of Applicants’ claim and further fails to indicate with sufficient specificity as required by 37 C.F.R. §1.104(c)(2) what portion of *Hamami* the Examiner believes anticipates “restoring” as claimed. Applicants wish to further point out, should the Examiner suggest that virtual circuit 68 of *Hamami* teaches Applicants’ “virtual path” that *Hamami*’s virtual circuit 68 is replaced by “a standby virtual circuit” rather than being restored (see *Hamami*, Abstract). Consequently, virtual circuit 68 of *Hamami* is not “restored” but rather is replaced by a predetermined “backup” or “standby” virtual circuit according to *Hamami*’s teaching.

Applicants additionally submit that the Examiner’s reference to “backup ports 2” as taught by *Hamami* in the present Office Action, and the cited portions of the reference, without more, fail to indicate that or how *Hamami* teaches identifying a second port within a link to which a virtual path is restored generally, much less performing such an identification, in response to “transferring a restoration message packet” as claimed. Applicants submit that the mere existence or presence of an element (e.g., a port) does not, inherently or otherwise, teach the identification of such an element.

Moreover, according to the teaching of *Hamami* (*Hamami*, Column 5, Lines 29-35) all virtual circuits (including “standby” virtual circuit 65 associated with backup link ports 36 and 44) are set up prior to the occurrence of a failure and therefore prior to any signaling between ATM switches 20 and 22 over direct control virtual circuit 64. Consequently, *Hamami* fails to teach the dynamic identification of a second port used for restoration, i.e., “identifying said second port within said link in response to said transferring” as claimed (Applicants’ claim 1, emphasis supplied). Rather, *Hamami* teaches a static, predetermined identification of virtual circuits including standby virtual circuit 65 prior to the occurrence of any failure and therefore cannot be construed as anticipating Applicants’ claim.

In the present Office Action, the Examiner has further failed to indicate that or where specifically *Hamami* teaches, “a determination that at least one alternate port is available” as claimed. Applicants submit that this element is in fact not taught within the

cited portions of *Hamami*, nor are Applicants able to identify any other portions of *Hamami* that teach such an element, and therefore submit that *Hamami* fails to teach, “restoring said virtual path” viewed as a whole as claimed (Applicants’ claim 1). As *Hamami* teaches the establishment or configuration of redundant links and ports prior to the occurrence of a failure as shown previously herein, no determination of whether an alternate port is available is necessary. Backup link ports 36 and 44 are *per se* available according to *Hamami*’s teaching (barring a port failure not identified until switches 120 and 122 are closed) and consequently no determination as to the availability of these ports is needed. Moreover, no additional ports are taught by *Hamami* or needed according to its teaching as this would merely waste additional resources.

For at least the foregoing reasons, Applicants submit that Applicants’ claim 1 and all claims depending directly or indirectly therefrom are allowable over the Examiner’s cited references and request that the Examiner’s rejection(s) be withdrawn. Applicants’ claims 156 and 167 (and all claims depending directly or indirectly therefrom) each contain one or more limitations substantially similar to those described with respect to Applicants’ claim 1 and are therefore allowable for at least those reasons stated for the allowability of claim 1.

Rejection of Claims under 35 U.S.C. §103

In the present Office Action, claims 147-149 and 158-160 were rejected under 35 U.S.C. §103(a), as being obvious over *Hamami* in view of United States Patent No. 5,987,526, issued to Morales (hereinafter “*Morales*”). While not conceding that the Examiner’s cited reference(s) qualify as prior art, but instead to expedite prosecution, Applicants have elected to respectfully disagree and to traverse the Examiner’s rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that one or more of the Examiner’s cited references do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

With respect to the combination of *Hamami* and *Morales*, the Examiner states in the present Office Action that,

Hamami disclose the switch over backup ports occurs automatically and relative quickly. See col. 4, lines 40-45. Hamami does not disclose the time to restore the

virtual path is 10ms, less than 2ms, between 50ms and 250ms. *Morales* discloses the time to restore the virtual path is 10 milliseconds (less than 2 seconds), between 50 milliseconds (50 milliseconds) and 250 milliseconds. See col. 4, lines 15-30. Therefore it would have been obvious to one ordinary skill in the art to modify the *Hamami* to restore VPs as time requirements of claimed limitation.

Applicants respectfully disagree.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143-2143.03.

Applicants respectfully submit that the statement in the present Office Action to the effect that because *Hamami* teaches a switchover to redundant links and ports which occurs “relatively quickly”, it would be obvious to combine the teaching of *Hamami* with the specific error resolution times of *Morales* fails to provide any suggestion or motivation for such a combination, found either in the Examiner's cited references themselves or in the knowledge of one of ordinary skill at the time of Applicants' invention. Accordingly, Applicants submit that the present Office Action fails state a *prima facie* case of obviousness. Moreover, Applicants respectfully submit that, even if combined, *Hamami* and *Morales* in combination still fail to teach all elements of Applicants' claims.

As an initial matter, Applicants submit that *Morales* fails to teach, show, or suggest restoring a virtual path in “less than 2 seconds” (Applicants' claim 147), “less than 250 milliseconds” (Applicants' claim 148), or “less than 50 milliseconds” (Applicants' claim 149) as claimed. *Morales* teaches that, “it may be preferable to wait for a period of time before rerouting data to the second PVC and the second interface” (see, e.g., *Morales*, Column 4, Lines 3-41) for a variety of reasons (e.g., to enable failure

correction mechanism to resolve failures which caused the rerouting to occur, to allow time for intermittent failures to cease). *Morales* further teaches that,

Because networks 110 and 120 operate in a similar manner, both networks begin using interface 132 instead of interface 131 at approximately the same time. However, the period of time that network 110 waits before activating PVC 115 and the period of time that network 120 waits before activating PVC 125 need not be the same, but are preferably similar to minimize packet loss and/or the use of buffers at ports 113 and 123. (*Morales*, Column 5, Lines 38-45, emphasis supplied)

Consequently, *Morales* teaches both that 1) rerouting is not performed until after a period of time expires (rather than being performed within such a period of time and 2) rerouting may not complete within any predetermined amount of time as the use of some elements used to reroute data is outside of the control of *Morales*' teaching. Accordingly, Applicants respectfully submit that *Morales* fails to teach, show, or suggest restoring a virtual path in "less than 2 seconds" (Applicants' claim 147), "less than 250 milliseconds" (Applicants' claim 148), or "less than 50 milliseconds" (Applicants' claim 149) as claimed.


Moreover, for at least the foregoing reasons, it has been shown that *Hamami* fails to teach, show, or suggest, "restoring said virtual path" or "identifying said second port within said link" where the restoring is performed in response to a determination that at least one alternate port is available and the identifying is performed in response to the transfer of a restoration message packet as claimed. *Morales*, in contrast to Applicants' claimed invention embodiments, has not been cited as teaching any of these limitations and further fails to teach, show, or suggest particularly "identifying" as claimed. *Morales*, like *Hamami*, fails to teach the dynamic identification of a second port used for restoration, i.e., "identifying said second port within said link in response to said transferring" as claimed (Applicants' claim 1, emphasis supplied) but rather teaches the use of statically predetermined elements (e.g., ports, virtual circuits and interfaces) following the detection of a failure. Applicants submit that the combination of *Hamami* and *Morales* cannot be construed as teaching "restoring" or "identifying" and therefore fails to teach all elements of Applicants' claim.

Applicants therefore submit that claims 147-149 and 158-160 and all claims depending directly or indirectly therefrom are independently allowable over the Examiner's cited references and request that the Examiner's rejection(s) be withdrawn.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5097.

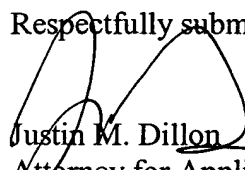
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9-30-04
Date of Signature

Respectfully submitted,


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